US030227

CLAIMS:

1. (previously presented) An apparatus for detecting at least one of handling of electrodes and removing of the electrodes from a package comprising:

a pair of electrodes suitable for attachment to a patient and each including a conductor for sensing a patient electrical characteristic or delivering electricity to a patient;

an impedance element included with at least one of the electrodes which varies when an electrode is flexed or bent;

a current delivery circuit, coupled to the electrodes, which causes current to flow through the impedance element;

a monitoring circuit coupled to the impedance element for monitoring a magnitude of an electrical characteristic resulting from the flow of current through the impedance element,

wherein an occurrence of at least one of handling and removing of the electrodes is identified by the variation of the impedance of the impedance element.

2. (canceled)

- 3. (previously presented) The apparatus of claim 1, wherein the monitoring circuit includes a circuit for monitoring a magnitude of impedance, and wherein the occurrence is identified based on a variation over time in the magnitude of the impedance.
- 4. (previously presented) The apparatus of claim 3, wherein the occurrence is identified based on plural variations over time in the magnitude.
 - 5. (previously presented) The apparatus of claim 1, wherein:

the impedance element resides between the electrodes; and

the electrodes and the impedance element are contained within a package prior to the occurrence to be identified.

6. (previously presented) The apparatus of claim 5, wherein the impedance element comprises an electrically-conductive hydrogel located between the electrodes.

7. (canceled)

8. (previously presented) A method for detecting at least one of handling of electrodes and removing of the electrodes from a package containing the electrodes, the electrodes including an impedance element exhibiting an impedance which varies when the impedance element is flexed or bent, the method comprising the steps of:

monitoring a magnitude of an electrical characteristic measured from an electrical circuit having an electric current path through the impedance element; and

identifying an occurrence of at least one of handling and removing the electrodes based on variation over time in the magnitude.

9. - 13. (canceled)

14. (previously presented) A defibrillator apparatus comprising:

a defibrillator electrode pad including an impedance element, the impedance of which changes when the electrode pad is deflected or bent;

an integral belt surrounding the pad; and

a monitoring circuit coupled to the electrode pad and operable to monitor the impedance of the impedance element;

wherein a composition and a thickness of the belt causes an operator to flex or bend the pad when preparing to apply the pad to a medical patient in need of defibrillation.

15. - 18. (canceled)

- 19. (previously presented) The method of Claim 8, further comprising locating the electrodes in a package and electrically connecting the electrodes to the electrical circuit.
- 20. (previously presented) The method of Claim 19, wherein monitoring further comprises monitoring the electrical characteristic with an electrical circuit of a defibrillator.

- 21. (previously presented)The method of Claim 8, wherein monitoring further comprises monitoring the magnitude of an electrical characteristic of an electrically-conductive hydrogel of the electrodes.
- 22. (previously presented) The defibrillator apparatus of Claim 14, wherein the belt is made of at least one of paper, plastic, and metal.
- 23. (previously presented) The defibrillator apparatus of Claim 22, wherein the impedance element comprises an electrically-conductive hydrogel of the electrodes.